

II. CLAIM AMENDMENTS

1. (Original) A method of defining header field compression for a data packet connection, the method comprising

defining a context for a compressor and decompressor as one parameter of the connection for controlling the operation of said compressor and decompressor,

defining a length for a context identifier used in identifying data packet connections on data transmission between the compressor and decompressor, which length defines the maximum number of compressed data packet connections transmitted on one connection,

identifying each data packet connection by its own context identifier, and

defining the parameters of the connection in such a manner that at least the number of header fields of data packet connections allowed by the length of the defined context identifier can be compressed despite the fact that the number of data packet connections allowed by said context identifier length is exceeded.

2. (Original) A method as claimed in claim 1, further comprising

reserving at least one value of the length of the defined context identifier for an uncompressed data flow.

3. (Original) A method as claimed in claim 1, further comprising
controlling the compression by a convergence protocol layer of
a mobile system, and

directing the mobile system, in response to exceeding the
number of data packet connections allowed by the context
identifier length, to re-define the parameters of a radio
bearer in such a manner that the new value of the context
identifier length enables the compression of the header
fields of all data packet connections.

4. (Original) A method as claimed in claim 3, further comprising
using values defined for data packet identifiers of the
convergence protocol layer to define the new value for the
context identifier length.

5. (Original) A method as claimed in claim 1, further comprising
controlling the compression by the convergence protocol layer
of the mobile system,

signalling the maximum number of simultaneous data packet
connections defined for each radio bearer to the mobile
system entity which, when establishing a new data packet
connection, decides which radio bearer it will be associated
with, and

directing the mobile system, in response to exceeding the number of data packet connections allowed by the context identifier length, to re-define the radio bearer parameters in such a manner that the new value of the context identifier length enables the compression of the header fields of all data packet connections.

6. (Original) A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system,

signalling the maximum number of simultaneous data packet connections defined for each radio bearer to the mobile system entity which, when establishing a new data packet connection, decides which radio bearer it will be associated with, and

directing the mobile system, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define a new radio bearer for the extra data packet connections.

7. (Original) A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system,

directing the convergence protocol layer or the compressor in it, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to transmit the extra data packet connections without header field compression.

8. (Original) A method as claimed in claim 7, further comprising attaching to said extra data packet connections an identifier, on the basis of which the data packets are received without decompression.

9. (Original) A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system, and directing the convergence protocol layer, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define for the data packet connections several link-level connections to which the data packet connections are allocated.

10. (Original) A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system, and

directing the convergence protocol layer, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to reject the extra data packet connections.

11. (Original) A method as claimed in claim 3, wherein

the terminal limits the number of simultaneous data packet connections to be smaller than the number of data packet connections allowed by the maximum value of the context identifier length.

12. (Original) A header field compression system comprising

a compressor and decompressor,

a context configured to be defined for the data packet connection between the compressor and the decompressor as one parameter of the connection, which context controls the operation of the compressor and the decompressor,

a context identifier configured to identify the data packet connections, for which context identifier a length is configured to be defined, said length defining the maximum number of compressed data packet connections transmitted on one connection between the compressor and decompressor,

in which system the data packet connections are configured to be identified by a context identifier, and

the parameters of the connection are configured to be defined in such a manner that at least the number of header fields of data packet connections allowed by the defined context identifier length can be compressed despite the fact that the number of data packet connections allowed by said context identifier length is exceeded.

13. (Original) A system as claimed in claim 12, wherein

at least one value of the length of the defined context identifier is reserved for an uncompressed data flow.

14. (Original) A system as claimed in claim 12, wherein

the compression is configured to be controlled by a convergence protocol layer of a mobile system, and

the mobile system is configured, in response to exceeding the number of data packet connections allowed by the context identifier length, to re-define the parameters of a radio bearer so that the new value of the context identifier length enables the compression of the header fields of all data packet connections.

15. (Original) A system as claimed in claim 12, wherein

the compression is configured to be controlled by the convergence protocol layer of the mobile system, and

the convergence protocol layer is configured, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define for the data packet connections several link-level connections to which the data packet connections are allocated.

16. (New) A network element for a mobile communication system comprising a header field compression system including a compressor and a decompressor, the header field compression system comprising

means for defining a context for the data packet connection between the compressor and the decompressor as one parameter of the connection, the context controlling the operation of the compressor and decompressor and comprising a context identifier to identify the data packet connections,

means for defining a length for the context identifier for data transmission between the compressor and decompressor, the length defining the maximum number of compressed data packet connections transmitted on one connection,

means for identifying each data packet connection by its own context identifier, wherein

the network element comprises means for receiving a signal from a convergence protocol layer of the mobile communication system, the signal indicating the maximum number of simultaneous data packet connections defined for each radio bearer, and

the network element comprises means for directing the mobile communication system, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define a new radio bearer for the extra data packet connections.

17. (New) A network element according to claim 16, wherein the network element is configured to reserve at least one value of the length of the defined context identifier for an uncompressed data flow.

18. (New) A mobile device for a mobile communication system comprising a header field compression system including a compressor and a decompressor, the header field compression system comprising

means for defining a context for the data packet connection between the compressor and the decompressor as one parameter of the connection, the context controlling the operation of the compressor and decompressor and comprising a context identifier to identify the data packet connections,

means for defining a length for the context identifier for data transmission between the compressor and decompressor, the length defining the maximum number of compressed data packet connections transmitted on one connection,

means for identifying each data packet connection by its own context identifier, wherein

the mobile device comprises means for signalling, on its convergence protocol layer, the maximum number of simultaneous data packet connections defined for each of its radio bearers to a mobile communication system entity which, when establishing a new data packet connection, decides which radio bearer it will be associated with, and

the mobile device comprises means for receiving a command from the entity, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define a new radio bearer for the extra data packet connections.

19. (New) A mobile device according to claim 18, wherein the mobile device is configured to reserve at least one value of the length of the defined context identifier for an uncompressed data flow.

20. (New) A network element for a mobile communication system comprising a header field compression system including a compressor and a decompressor, the header field compression system being configured to

define a context for the data packet connection between the compressor and the decompressor as one parameter of the connection, the context controlling the operation of the compressor and decompressor and comprising a context identifier to identify the data packet connections,

define a length for the context identifier for data transmission between the compressor and decompressor, the length defining the maximum number of compressed data packet connections transmitted on one connection,

identify each data packet connection by its own context identifier, wherein

the network element is configured to direct a convergence protocol layer of the mobile communication system, or the compressor in it, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to transmit the extra data packet connections without header field compression.

21. (New) A network element according to claim 20, wherein the network element is configured to reserve at least one value of the length of the defined context identifier for an uncompressed data flow.

22. (New) A mobile device for a mobile communication system comprising a header field compression system including a compressor and a decompressor, the header field compression system being configured to

define a context for the data packet connection between the compressor and the decompressor as one parameter of the connection, the context controlling the operation of the compressor and decompressor and comprising a context identifier to identify the data packet connections,

define a length for the context identifier for data transmission between the compressor and decompressor, the length defining the maximum number of compressed data packet connections transmitted on one connection,

identify each data packet connection by its own context identifier, wherein

the mobile device is configured to receive a command from a mobile communication system entity which, when establishing a new data packet connection, decides which radio bearer it will be associated with, to transmit the extra data packet connections without header field compression, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length.

23. (New) A mobile device according to claim 22, wherein the mobile device is configured to reserve at least one value of the length of the defined context identifier for an uncompressed data flow.